necessary documentation to banks and other financial institutions.

§ 170.301 Can a tribe use IRR Program funds to leverage other funds or pay back loans?

(a) A tribe can use IRR Program funds to leverage other funds.

(b) A tribe can use IRR Program funds to pay back loans or other finance instruments for a project that:

(1) The tribe paid for in advance of the current year using non-IRR Program funds; and

(2) Was included in FHWA-approved IRRTIP.

§ 170.302 Can BIA regional offices borrow IRR Program funds from each other?

Yes. A BIA Regional office, in consultation with tribes, may enter into agreements to borrow IRR Program funds to assist another BIA regional office in financing the completion of an IRR project. These funds must be repaid within the next fiscal year. These agreements cannot be executed during the last year of a transportation authorization act unless Congress has authorized IRR Program funds for the next year.

§ 170.303 Can a tribe apply for loans or credit from a State infrastructure bank?

Yes. Upon the request of a tribe, BIA region will provide necessary documentation to a State infrastructure bank to facilitate obtaining loans and other forms of credit for an IRR project. A state infrastructure bank is a state or multi-state fund that can offer loans and other forms of credit to help project sponsors, such as tribes, pay for transportation projects.

APPENDIX A TO SUBPART C—IRR HIGH PRIORITY PROJECT SCORING MATRIX

Score	10	5	3	1	0
Accident and fatality rate for candidate route [1].	Severe	X	Moderate	Minimal	No accidents.
Years since last IRR construction project completed.	Never	Last project more than 10 years ago.	Last project 5–9 years ago.	Last project within last 1 to 4 years.	Currently has project.
Readiness to Proceed to Construction or IRRBP Design Need.	PS&E Complete and approved.	Bridge Replacement PS&E development Project.	Bridge Rehabilitation PS&E development Project.	Non-bridge PS & E development Project.	X.
Percentage of Project matched by other funds.	X	80 percent or more by other funds.	20–79 percent by other funds.	1–19 percent	No other funds.
Amount of funds requested [2].	X	250,000 or less.	250,001–500,000.	500,001–750,000.	Over 750,000.
Geographic isolation ...	No external access to community.	Substandard Primary access to community.	Substandard Secondary access to community.	Substandard access to tribal facility.	X.
All weather access for: —Employment —Commerce —Health —Safety —Educational Resources —Housing	Addresses all 6 elements.	Addresses 4 or 5 elements.	Addresses 3 elements.	Addresses 2 elements.	Addresses 1 element.

[1] National Highway Traffic Safety Board standards.
[2] Total funds requested, including preliminary engineering, construction, and construction engineering.

APPENDIX B TO SUBPART C—POPULATION ADJUSTMENT FACTOR

1. The Population Adjustment Factor allows for participation in the IRR Program by all tribes. This component of the funding formula creates a special calculation of funding which is available in accordance with the TTAM each fiscal year for a tribe based on the population range within which the tribe is included. The following table shows how BIA develops the PAF.

Population range	Distribution factor*	Number of tribes**	Funding amount per tribe
Less than 25	1	N_1	MBA*** × 1
25–100	3.5	N_2	MBA × 3.5
101–1000	5.0	N_3	MBA × 5.0
1001–10,000	6.5	N_4	MBA × 6.5
10,001+	8	N_5	MBA × 8

*Multiplier used to determine the PAF funding for the population ranges. For example, if $1000 is available for the first population range (less than 25), then the second population range (25–100) will receive $3,500 or 3.5 times the amount available to the first population range.

**The number of tribes changes yearly.

***The Minimum Base Allocation (MBA) is the dollar value to be multiplied by the distribution factor for each population range to determine the distribution of the PAF.

2. The following example shows how the PAF applies to a total IRR Program authorization for the allocation year of $375 million. The five steps to calculate the Population Adjustment Factor are applied as follows:

Step 1. For each population range, multiply the Distribution Factor by the total number of tribes identified in the population range to determine the Step Factor;

Step 2. Add the Step Factors determined in Step 1 above to derive a Total Step Factor;

Step 3. Calculate the $A = IRR Program authorization available in the allocation year by taking the Total IRR Program authorization for the allocation year ($375M for this example) minus the appropriate statutory and regulatory set-asides, as well as other takedowns ($25M for this example)

$375M − $25M = $350M;

Step 4. Derive a Minimum Base Allocation by taking 12½ per cent of the difference (from Step 3) and dividing it by the Total Step Factor. The mathematical equation for the Base Allocation is as follows:

$$\text{MBA} = \left(\frac{12\tfrac{1}{2}\% \times (\$\text{A} - \$275\text{M})}{\left(\text{N}_1 + 3.5\text{N}_2 + 5\text{N}_3 + 6.5\text{N}_4 + 8\text{N}_5\right)} \right)$$

MBA = Minimum Base Allocation

Distribution Factors = 1, 3.5, 5, 6.5, and 8

$A = IRR Program Authorization Available in the Allocation Year

$275M = Base Reference Amount

n = The nth Population Range

1 . . . 5 = Population Ranges 1 through 5

N_n = Number of tribes in the nth Population Range

For the example above, the formula yields:

$$\text{MBA} = \frac{12\tfrac{1}{2}\% \times (\$350\text{M} - \$275\text{M})}{17 + 3.5(66) + 5(309) + 6.5(137) + 8(29)} = \frac{\$9{,}375{,}000}{2{,}915.50} = \$3{,}215.57$$

Step 5. Calculate Population Adjustment Factor within each Population Range by multiplying the Distribution Factor for the Population Range by the Minimum Base Allocation.

The mathematical equation for the Population Adjustment Factor calculation is as follows:

$PAF_n = DF_n$ X MBA

Where:

PAF = Population Adjustment Factor
DF = Distribution Factor
n = The n^{th} Population Range
MBA = Minimum Base Allocation

For example, for $DF_1 = 1.00$; $PAF_1 = 1 \times \$3,215.57 = \$3,215.57$

For example, for $DF_3 = 5.00$; $PAF_3 = 5 \times \$3,215.57 = \$16,077.86$

The following table illustrates the results of the above calculations for all population ranges:

Population range (step)	# of tribes	Distribution factor	Step factor	Tribal PAF per population range	Total funding per step
Less than 25	17	1	17	$3,215.57	$54,664.72
25–100	66	3.5	231	11,254.50	742,797.12
101–1000	309	5	1545	16,077.36	4,968,058.65
1001–10,000	137	6.5	890.50	20,901.22	2,863,466.82
10,001 +	29	8	232	25,724.58	746,012.69
Totals	.....	Total Step Factor = 2,915.50		.....	9,375,000

APPENDIX C TO SUBPART C—RELATIVE NEED DISTRIBUTION FACTOR

The Relative Need Distribution Factor (RNDF) is a mathematical formula for distributing the IRR Program construction funds using the following three factors: Cost to Construct (CTC), Vehicle Miles Traveled (VMT), and Population (POP).

1. WHAT IS THE FORMULA FOR THE RNDF?

The Relative Need Distribution Factor is as follows:

$$A = \alpha \times \{CTC \div Total\ C\} + \beta \times \{VMT \div Total\ VMT\} + \delta \times \{POP \div Total\ POP\}$$

Where:

A = percent Relative Need for an individual tribe
CTC = Total Cost to Construct calculated for an individual tribe
Total C = Total Cost to Construct calculated for all tribes shown in the IRR Inventory
VMT = Total vehicle miles traveled for all routes in the IRR Inventory for a given tribe
Total VMT = Total vehicle miles traveled for all routes for all tribes in the IRR Inventory
POP = Population of an individual tribe
Total POP = Total population for all tribes
α, β, δ, = 0.50, 0.30, 0.20 respectively = Coefficients reflecting relative weight given to each formula factor

Example: Tribe X has the following data:

CTC = $51,583,000 ..... Total CTC = $10,654,171,742
VMT = 45,680 ..... Total VMT = 10,605,298
POP = 4,637 ..... Total POP = 1,010,236

A = 0.50 [CTC ÷ Total CTC] + 0.30[VMT ÷ Total VMT] + 0.20[POP ÷ Total POP]

A = 0.50 [51,583,000 ÷ 10,654,171,742] + 0.30 [45,680 ÷ 10,605,298] + 0.20 [4,637 ÷ 1,010,236]
A = 0.00242 + 0.00129 + 0.00092
A = 0.00463 or 0.463 percent

If IRR Program construction funds available for the fiscal year are $226,065,139
Then the allocation amount would be: $226,065,139 × 0.00463 = $1,046,682.

2. How Does BIA Estimate Construction Costs?

The methodology for calculating the Cost to Construct is explained in Appendix D of this subpart.

3. What Is the Cost to Construct for an Individual Tribe?

The Cost to Construct for an individual tribe is the sum of all eligible and approved project costs from the tribe's IRR Inventory.

4. What Is the Cost to Construct Component in the RNDF?

The Cost to Construct component is the total estimated cost of a tribe's transportation projects as a percentage of the total

estimated cost nationally of all tribes' transportation facilities. Costs are derived from the IRR inventory of eligible IRR transportation facilities developed and approved by BIA and tribal governments through Long-Range Transportation Planning.

5. May the Cost to Construct Component of the RNDF Be Modified?

Yes, BIA and FHWA, with input and recommendations provided by the IRR Program Coordinating Committee, may consider revisions to the data elements used in calculating the Cost to Construct component.

6. What Is the Source of the Construction Cost Used To Generate the CTC?

(a) The construction cost will be derived from the average of the following three project bid tabulation sources:

(1) Tribal bid tabulations or local BIA bid tabulations;

(2) State bid tabulations for the region of the State in which the tribe's project will be constructed;

(3) National IRR Program bid tabulations.

(b) If one or more of these bid tabulation sources is unavailable, use the average of the available sources.

(c) BIADOT will collect the national IRR Program bid tabulation data and enter it into the Cost to Construct database.

7. What Is the VMT Component and How Is It Calculated?

VMT is a measure of the current IRR transportation system use. BIA calculates VMT using the sum of the length of IRR route segments in miles multiplied by the Average Daily Traffic (ADT) of the route segment.

8. What IRR Route Sections Does BIA Use To Calculate VMT?

All IRR route sections in the IRR Inventory are used to calculate VMT, but percentage factors are applied in accordance with Appendix C to subpart C, question (10).

9. What Is the Population Component and How Is It Determined?

The population component is a factor used to define a portion of transportation need based on the number of American Indian or Alaska Native people served. The population data used will be the American Indian and Alaska Native Service Population developed by the Department of Housing and Urban Development, under the Native American Housing Assistance and Self-Determination Act (NAHASDA), (25 U.S.C. 4101 *et seq.*).

10. Do All IRR Transportation Facilities in the IRR Inventory Count at 100 Percent of Their CTC and VMT?

No. The CTC and VMT must be computed at the non-Federal share requirement for matching funds for any transportation facility that is added to the IRR inventory and is eligible for funding for construction or reconstruction with Federal funds, other than Federal Lands Highway Program funds.

However, if a facility falls into one or more of the following categories, then the CTC and VMT factors must be computed at 100 percent:

(1) The transportation facility was approved, included, and funded at 100 percent of CTC and VMT in the IRR Inventory for funding purposes prior to the issuance of these regulations.

(2) The facility is not eligible for funding for construction or reconstruction with Federal funds, other than Federal Lands Highway Program funds; or

(3) The facility is eligible for funding for construction or reconstruction with Federal funds, however, the public authority responsible for maintenance of the facility provides certification of maintenance responsibility and its inability to provide funding for the project.

APPENDIX D TO SUBPART C—COST TO CONSTRUCT

COST TO CONSTRUCT

(Appendix D includes Tables 1–8 which BIA Division of Transportation developed based on internal IRR data and the negotiated rulemaking process.) This method utilizes the concepts of the Bureau of Indian Affairs' ''*Simplified Approach to Compute the Cost to Construct*''. The concept has been modified to include computing costs for High Capacity Roads (multi-lane roads), non-road projects (snowmobile trails, boardwalks, footpaths, etc.) and other eligible transportation facility projects.

The theory behind this concept is based on the procedure that information gathered during any inventory update can be used to compare the existing conditions to defined Adequate Standard Characteristics. This comparison can then be used to determine the total cost required to bring the transportation facility road up to a necessary Adequate Standard. The IRR Inventory database is used to determine the costs of a new transportation facility or in the case of an existing facility, the costs that will be necessary to improve the facility from it's existing condition to an adequate standard. Therefore, the Cost to Construct for a particular facility is the cost required to improve the facility's existing condition to a condition that would meet the Adequate Standard Characteristics (see Table 1). For roadways, the recommended design of the geometrics and surface type vary based on the road's functional classification and average daily traffic and will use four categories of cost. The four categories are Grade and Drain Costs, Aggregate Costs, Pavement Costs, and Incidental Costs. For bridges, costs are derived from costs in the National Bridge Inventory as well as the National Bridge Construction unit cost data developed by FHWA.

For other transportation IRR transportation facilities, an inventory of needs must be developed with associated costs for new and existing IRR transportation facilities based on long range transportation planning. The BIA Regions and tribes must ensure the IRR Inventory is sufficiently updated to provide all the necessary information indicating the need, the condition and the construction cost data to compute the cost to construct of any proposed or existing facility.

BASIC PROCEDURES

The IRR Inventory, based on transportation planning must be developed for those tribes without data and updated for those tribes that have an existing IRR Inventory. Once the IRR Inventory database is current and all IRR transportation facilities needs are identified and verified, the Cost to Construct for those IRR transportation facilities can be developed.

The procedure for determining the cost to construct of a proposed transportation facility is computed through the following step-by-step process:

(a) Determine the Future ADT of the transportation facility as applicable, based upon tribal transportation planning or set default future ADT (see Table 2);

(b) Determine the Class of transportation facility *e.g.*, rural local, rural major collector, or other transportation facility, utilizing future ADT and based upon tribal transportation planning (see Table 1);

(c) Identify, if appropriate, transportation facility terrain as flat, rolling, or mountainous;

(d) Set Adequate Standard based on Class, and/or future ADT, and Terrain (see Table 1);

(e) Identify the transportation facility's construction cost per unit (*e.g.*, cost per mile, cost per linear foot) for the applicable components of construction: Aggregate, Paving, Grade/Drain, Incidental, or other costs associated with the transportation facility;

(f) Multiply the construction cost per unit for each component of construction by the length of the proposed road or other appropriate unit of the transportation facility to determine the cost for each component of construction; and

(g) Calculate the cost for the proposed road or transportation facility by adding together the costs for each component of construction.

The procedure for determining the cost to reconstruct or rehabilitate an existing transportation facility is determined in the same manner as a proposed transportation facility, except that the existing condition of the project is evaluated to determine the remaining percentage of cost of each applicable component of construction that will be included in the cost for reconstruction. The steps are:

(1) Evaluate existing condition of road or transportation facility in accordance with applicable management systems, guidelines or other requirements;

(2) Identify the percentage of required cost for each component of applicable construction costs for the transportation facility by determining the Adequate Standards Characteristics (see Table 1) and existing condition of the transportation facility and by applying the applicable percent cost requirement tables for aggregate, paving, grade/drain, incidental, and bridge (see Tables 4–8);

(3) Multiply the construction cost per unit for each component of construction by the corresponding percent of cost required (see Tables 4–8) and by the length of the road or other appropriate unit of the transportation facility to determine the reconstruction cost for each component; and

(4) Calculate the reconstruction cost for the road or transportation facility by adding together the reconstruction costs for each component of construction.

Average daily traffic (ADT) is acquired through actual traffic counts on the roadway sections. Where current ADT is practical to acquire, it should be acquired and future ADT calculated by projecting the current ADT at 2 percent per year for 20 years. If the road is proposed, the ADT impractical to acquire, or a current ADT does not exist, then BIA will assign a default current ADT and calculate future ADT by projecting the default current ADT at 2 percent per year for 20 years to form the basis of the Adequate Standard (see Table 1). Table 2 summarizes the default current and default future ADT by class of road.

Functional Classification: Functional classification means an analysis of a specific transportation facility taking into account current and future traffic generators, and their relationship to connecting or adjacent BIA, state, county, Federal, and/or local roads and other intermodal facilities. Functional classification is used to delineate the difference between the various road and/or intermodal transportation facility standards eligible for funding under the IRR Program. As a part of the IRR Inventory system management, all IRR transportation facilities included on or added to the IRR Inventory must be classified according to the following functional classifications:

(a) *Class 1:* Major arterial roads providing an integrated network with characteristics for serving traffic between large population centers, generally without stub connections and having average daily traffic volumes of 10,000 vehicles per day or more with more than two lanes of traffic.

(b) *Class 2:* Rural minor arterial roads providing an integrated network having the characteristics for serving traffic between large population centers, generally without stub connections. May also link smaller

towns and communities to major resort areas that attract travel over long distances and generally provide for relatively high overall travel speeds with minimum interference to through traffic movement. Generally provide for at least inter-county or inter-State service and are spaced at intervals consistent with population density. This class of road will have less than 10,000 vehicles per day.

(c) *Class 3:* Streets that are located within communities serving residential areas.

(d) *Class 4:* Rural Major Collector Road is a collector to rural local roads.

(e) *Class 5:* Rural Local Road that is either a section line and/or stub type roads that collect traffic for arterial type roads, make connections within the grid of the IRR System. This class of road may serve areas around villages, into farming areas, to schools, tourist attractions, or various small enterprises. Also included are roads and motorized trails for administration of forest, grazing, mining, oil, recreation, or other use purposes.

(f) *Class 6:* City Minor Arterial Streets that are located within communities, and serve as access to major arterials.

(g) *Class 7:* City Collector Streets that are located within communities and serve as collectors to the city local streets.

(h) *Class 8:* This classification encompasses all non-road projects such as paths, trails, walkways, or other designated types of routes for public use by foot traffic, bicycles, trail bikes, snowmobile, all terrain vehicles or other uses to provide for the general access of non-vehicular traffic.

(i) *Class 9:* This classification encompasses other transportation facilities such as public parking facilities adjacent to IRR routes and scenic byways, rest areas, and other scenic pullouts, ferry boat terminals, and transit terminals.

(j) *Class 10:* This classification encompasses airstrips that are within the boundaries of the IRR System grid and are open to the public. These airstrips are included for inventory and maintenance purposes only.

(k) *Class 11:* This classification indicates an overlapping of a previously inventoried section or sections of a route and is used to indicate that it is not to be used for accumulating needs data. This class is used for reporting and identification purposes only.

Construction Need: All existing and proposed transportation facilities in the IRR Inventory must have a Construction Need (CN) which is used in the Cost to Construct calculations. These transportation facilities are assigned a CN by the tribe during the long-range transportation planning and inventory update process using certain guidelines which are: Ownership or responsibility of the facility, whether it is within or provides access to reservations, groups, villages and communities in which the majority of the residents are Indian, and whether it is vital to the economic development of Indian tribes. As part of the IRR Inventory management, all facilities included on or added to the IRR Inventory must be designated a CN which are defined as follows:

(a) *Construction Need 0:* Transportation facilities which have been improved to their acceptable standard or projects/facilities proposed to receive construction funds on an approved IRRTIP are not eligible for future inclusion in the calculation of the CTC portion of the formula for a period of 5 years thereafter.

(b) *Construction Need 1:* Existing BIA roads needing improvement.

(c) *Construction Need 2:* Construction need other than BIA roads needing improvement.

(d) *Construction Need 3:* Substandard or other roads for which no improvements are planned, maintenance only.

(e) *Construction Need 4:* Roads which do not currently exist and need to be constructed, proposed roads.

TABLE 1 - ADEQUATE STANDARD CHARACTERISTICS

The cost to construct of a particular transportation facility is defined as the cost required to improve the transportation facility from its existing condition to a condition that would meet the Adequate Standard Characteristics. Table 1 presents the Adequate Standard Characteristics.

ADEQUATE STANDARD NUMBER	1 2 3	4 5 6	7 8 9	10 11 12	13 14 15	16	17	18	19	20	21	
TERRAIN***	(1) (2) (3)	(1) (2) (3)	(1) (2) (3)	(1) (2) (3)	(1) (2) (3)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FUTURE ADT used in ADS assignment	N/A	FADT>=400	FADT<400	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BIA CLASS	1 MAJOR ARTERIAL	2 RURAL MINOR ARTERIALS		4 RURAL MAJOR COLLECTOR	5 RURAL LOCAL	6 CITY MINOR ARTERIAL	7 CITY COLLECTOR	3* CITY LOCAL	8 MOTORIZED/ NON-MOTORIZED TRAILS	9 OTHER TRANSPOR-TATION FACILITIES	10 AIRSTRIPS	11 Overlapping Routes
CALCULATED VALUES												
FUTURE SURFACE TYPE (EXISTING)	PAVED	PAVED	PAVED	FADT UNDER 50 -EARTH FADT 50-250 - GRAVEL FADT OVER 250 - PAVED		FADT UNDER 50 -EARTH FADT 50-250 - GRAVEL FADT OVER 250 - PAVED			DEPENDS ON FACILITY	N/A	N/A	N/A
FUTURE SURFACE TYPE (PROPOSED)	PAVED	PAVED	PAVED	FADT UNDER 50 -EARTH FADT 50-250 - GRAVEL FADT OVER 250 - PAVED	FADT UNDER 50 - EARTH FADT 50-400 - GRAVEL FADT OVER 400 - PAVED	FADT UNDER 50 -EARTH FADT 50-250 - GRAVEL FADT OVER 250 - PAVED			DEPENDS ON FACILITY	N/A	N/A	N/A
DEFAULT CURRENT ADT /DEFAULT FUTURE ADT**	must exist	ADT 100 FADT 149		ADT 50 FADT 74	ADT 50 FADT 74	ADT 50 FADT 74	ADT 50 FADT 74	ADT 25 FADT 37	ADT 20 FADT 30	N/A	N/A	N/A
RECOMMENDED DESIGN												
MINIMUM ROADWAY WIDTH (INCLUDING SHOULDERS)	66'	36'	32'	32'	28'	50' TOTAL PARKING 7' TURNING 12'	21' TO 38' DEPENDING ON TURNING LANES AND PARKING		DEPENDS ON FACILITY	N/A	N/A	N/A
SHOULDER WIDTH	6' MINIMUM	6'	4'	4'	2'	N/A			N/A	N/A	N/A	N/A
SHOULDER TYPE	PAVED	PAVED	PAVED	PAVED/GRAVEL/EARTH		N/A			N/A	N/A	N/A	N/A

* Local Class 3 roads may be earth, gravel or paved, depending on tribal customs, economics, or environmental considerations.
** Use default future ADT for proposed roads or where impractical to acquire ADT or ADT does not exist. (See Table 2 Default ADT and Default Future ADT). Where current ADT is practical to acquire, it should be acquired and projected to a future ADT at 2 per cent per year for 20 years.
*** (1)=Flat; (2)=Rolling; (3)=Mountainous

Table 2—Default Current ADT and Default Future ADT

Table 2 summarizes the default current and default future ADT by class of road. Default future ADT is calculated by projecting default current ADT at 2 percent per year for 20 years. 2 percent per year for 20 years yields a factor of 1.485.

TABLE 2—DEFAULT CURRENT ADT AND DEFAULT FUTURE ADT

IRR Class No.	Default current and default future ADT*
1	N/A, Must Exist
2	100 * 1.485 = 149
3	25 * 1.485 = 37
4	50 * 1.485 = 74
5	50 * 1.485 = 74
6	50 * 1.485 = 74
7	50 * 1.485 = 74
8	20 * 1.485 = 30
9	N/A**
10	N/A**
11	N/A**

*Default Future ADT is used for proposed roads or when impractical to acquire current ADT or when current ADT does not exist.

**Class 9, 10, and 11 are point features in the inventory and do not have an ADT. All multiplication is rounded.

Table 3—Future Surface Type

Table 3 summarizes all possible scenarios of the future surface type either required or based on the various future ADT thresholds for each type or class of road in the inventory.

TABLE 3—FUTURE SURFACE TYPE

Const. need	IRR class No.	Future ADT	Future surface type
0,1,2,3	1	Any	Paved
0,1,2,3	2	Any	Paved
0,1,2,3	3,6,7	< 50	Earth
		50–250	Gravel
		> 250	Paved
0,1,2,3	4,5	< 50	Earth
		50–250	Gravel
		> 250	Paved
0,1,2,3,4	8	N/A	N/A*
0,1,2,3,4	9	N/A	N/A**
0,1,2,3,4	10	N/A	N/A***
4***	1	N/A****	N/A****
4	2	ANY	Paved
4	3,6,7	< 50	Earth
		50–250	Gravel
		> 250	Paved
4	4	< 50	Earth
		50–250	Gravel
		> 250	Paved
4	5	< 50	Earth
		50–250	Gravel
		> 250	Paved

*Class 8 does not have a future surface type. Per mile costs are applied independent of future surface type.
**Class 9 does not have a future surface type. Costs are independent of future surface type.
***Class 10 does not have a future surface type. These are airstrips and is used for identification purposed only.
****Class 1 with Construction Need of 4 does not apply. Class 1 roads must exist.

Table 4—Percent of Grade and Drain Cost Required

Grade and Drain costs include the cost for constructing a roadbed to an adequate standard and providing adequate drainage. Specifically it includes the necessary earthwork to build the roadbed to the required horizontal and vertical geometric parameters above the surrounding terrain and provide for proper drainage away from the foundation with adequate cross drains.

Table 4 summarizes the percentage of grade and drain costs required based on the existing roadbed condition observed in an inventory update.

TABLE 4—PERCENT OF GRADE AND DRAIN COST REQUIRED

Code	Roadbed condition	Percent grade and drain cost required (Percent)
0	Proposed Road	100
1	Primitive Trail	100
2	Bladed Unimproved Earth Road, Poor Drainage, Poor Alignment	100

TABLE 4—PERCENT OF GRADE AND DRAIN COST REQUIRED—Continued

Code	Roadbed condition	Percent grade and drain cost required (Percent)
3	Minimum Built-up Roadbed (Shallow cuts and fills) with inadequate drainage and alignment that generally follows existing ground.	100
4	A designed and constructed roadbed with some drainage and alignment improvements required.	100
5	A roadbed constructed to the adequate standards with good horizontal and vertical alignment and proper drainage.	0
6	A roadbed constructed to adequate standards with curb and gutter on one side ...	0
7	A roadbed constructed to adequate standards with curb and gutter on both sides	0

Table 5—Percent of Aggregate Surface Cost Required

Table 5 summarizes the percentage of aggregate surface costs required based on all possible scenarios of existing surface type conditions and calculated future surface type.

TABLE 5—PERCENT OF AGGREGATE SURFACE COST REQUIRED

Existing surface type	Future surface type		
	Paved (percent)	Gravel (percent)	Earth (percent)
Proposed	100	100	0.
Primitive	100	100	0.
Earth	100	100	0.
Gravel	100	*100	0.
Bituminous < 2″	100	0	0.
Bituminous > 2″	0 or 100	0	0.
Concrete	0 or 100	0	0.

*If the Surface Condition Index (SCI) is 40 or less indicating that reconstruction will be required, then 100 percent of the aggregate cost will be required. If greater than 40, then none of the aggregate cost will be applied.

Table 6—Percent of Pavement Surface Cost Required

Table 6 Summarizes the percentage of pavement surface costs for existing conditions required based on all possible scenarios of existing surface type conditions and calculated future surface type. Pavement overlays are calculated at 100 percent of the pavement costs.

TABLE 6—PERCENT OF PAVEMENT SURFACE COST REQUIRED

Existing surface type	Future surface type		
	Paved (percent)	Gravel (percent)	Earth (percent)
Proposed	100	100	0.
Primitive	100	100	0.
Earth	100	100	0.
Gravel	100	100	0.
Bituminous < 2″	100	0	0.
Bituminous > 2″	*0 or 100	0	0.
Concrete	*0 or 100	0	0.

*If the Surface Condition Index (SCI) is 60 or less indicating that reconstruction will be required, then 100 percent of the aggregate cost will be required. If greater than 60, then none of the aggregate cost will be applied.

Table 7—Percent of Incidental Construction Cost Required

Incidental cost items are generally required if a project includes construction or reconstruction of the roadbed. Some incidental items are included in all road improvement projects, while others are only required for specific projects. Table 7 summarizes the incidental construction determination estimating procedure for each of the Roadbed Category Codes. As shown in Table 4, roadbed condition codes 0 through 2 will require 65 percent of the incidental costs for

construction because they generally will not require maintenance of traffic during construction. If maintenance of traffic is required as will generally be the case for roadbed condition codes 3 and 4, the minimum percentage of incidental costs for these roadbed condition codes will be 75 percent. It is assumed that improvement roadbed condition codes 5, 6 and 7 will primarily be paving projects with little or no earthwork involved and the minimum percentage of the total incidental construction cost for these projects will be 30 percent.

TABLE 7—PERCENT OF INCIDENTAL CONSTRUCTION COST REQUIRED

Code	Roadbed condition	New alignment (percent)	Maintenance of traffic required (percent)
0	Proposed road	65	N/A
1	Primitive trail	65	N/A
2	Bladed unimproved earth road, poor drainage, poor alignment	65	N/A
3	Minimum built-up roadbed (shallow cuts and fills) with inadequate drainage and alignment that generally follows existing ground.	N/A	75
4	A designed and constructed roadbed with some drainage and alignment improvements required.	N/A	75
5	A roadbed constructed to the adequate standards with good horizontal and vertical alignment and proper drainage. Requiring surfacing.	N/A	30
6	A roadbed constructed to adequate standards with curb and gutter on one side. Requiring surfacing.	N/A	30
7	A roadbed constructed to adequate standards with curb and gutter on both sides. Requiring surfacing.	N/A	30

Table 7 only accounts for those incidental construction costs normally found on a typical project. The construction items found in Table 8 may or may not be on any particular project and the cost of these items is 25 percent. Add the percentage required (from 0 to 25 percent) based on the Regional recommendation with verification. If there are no additional items required, use the default of zero.

TABLE 8—PERCENT OF ADDITIONAL INCIDENTAL CONSTRUCTION COST

Additional incidental construction item	Percent of total incidental construction cost
Fencing	1
Landscaping	9
Structural concrete	9
Traffic signals	3
Utilities	3

Subpart D—Planning, Design, and Construction of Indian Reservation Roads Program Facilities

TRANSPORTATION PLANNING

§ 170.400 What is the purpose of transportation planning?

The purpose of transportation planning is to fulfill goals by developing strategies to meet transportation needs. These strategies address current and future land use, economic development, traffic demand, public safety, health, and social needs.

§ 170.401 What is BIA's role in transportation planning?

Except as provided in § 170.402, the functions and activities that BIA must perform for the IRR Program are:

(a) Preparing the regional IRRTIP;

(b) Updating the IRR Inventory from data updates;

(c) Preparing IRR Inventory data updates as needed;

(d) Coordinating with States and their political subdivisions, and appropriate planning authorities on regionally significant IRR projects;

(e) Providing technical assistance to tribal governments;

(f) Developing IRR Program budgets including transportation planning cost estimates;

(g) Facilitating public involvement;

(h) Participating in transportation planning and other transportation-related meetings;

(i) Performing traffic studies;

(j) Performing preliminary project planning;

(k) Conducting special transportation studies;

(l) Developing short and long-range transportation plans;

(m) Mapping;